



**MEETING SUMMARY**

**CALIFORNIA WATER PLAN UPDATE 2013**  
**FINANCE CAUCUS SESSION**

**2:00 – 5:00 P.M.**

**EAST-END COMPLEX TRAINING ROOMS, CA. DEPT. OF PUBLIC HEALTH**  
**1500 CAPITOL AVENUE SACRAMENTO, CA**

**Meeting Objectives**

1. Review categories and definitions for IWM Benefits
2. Discuss key elements of Finance Scenario Development Table
3. Receive briefing on vision for future Decision-Support System (DSS)

**Welcome, Introductions and Recap**

Lisa Beutler, Executive Facilitator, reviewed the agenda, noting that the afternoon discussions will include talking about benefits definitions and taking a look at how the pieces will come together for the overall finance approach.

Paul Massera welcomed the Caucus members and provided a high-level overview of the work to date. This includes: revising the draft Finance Plan storyboard, a second cut at the draft Integrated Water Management benefit definitions, developing a template for identifying potential IWM activities for inclusion in the Finance Plan, and creating a vision for informing investments in IRWM activities. Mr. Massera explained that the final draft storyboard will be used for the remainder of the process, serving as the roadmap for creating the finance plan.

Legislative staff had requested a briefing on the Finance Plan, this occurred as a joint session with the State Agency Steering Committee. The feedback was that the content in the storyboard represents helpful information for supporting the legislature in decision-making. It was noted that the Finance Plan represents a long-term strategy and will not have a nexus to currently emerging legislation.

Question: There was question as to whether legislative proposals should perhaps be delayed while this work is being done.

Response: Legislative staff members had commented that it was difficult to draft legislation without having this type of discussion. There was no explicit acknowledgement to wait for the finance plan to be completed. It was noted that this type of information would be helpful.

Response: Kamyar Guivetchi noted that the conversation focused more on the work of the Water Plan. We wanted to inform them of the activities we were undertaking.



## Creating Common Language for IWM Benefits

Paul Massera referenced the handout for the IWM Benefits Definitions Table. Members were asked to assess the work to date and determine if the current results can be used to: screen activities for shaping the content of the Update 2013 Finance Plan, identify resource values, and inform future performance metrics. The proposal is to start using the Benefits Definitions now and refine and finalize the definitions table over the next 12 months.

The process involved was briefly recapped. Initially, the Finance Caucus identified the Benefit Types to reflect the scope and outcomes contained in the Finance Plan storyboard. Members of the Definitions sub-committee then specified Resource-Dependent Values which represent the outcomes that people are concerned about. The examples of IWM benefits and the definitions themselves built off the Resource-Dependent Values.

Do these definitions reflect the issues that matter most? Any heartburn or suggestions for improvement? Do the definitions cover the types of activities that you would like to see in an investments package? These benefits are referenced in the template for identifying the IWM activities addressed.

## Discussion

- There was a suggestion to rank the Benefit Types according to 2009 statutory requirements. Mr. Massera noted that the template (in the upcoming agenda item) will allow that very kind of prioritization.
- The definition for **water quality** sounds anthropogenic. It would be better to list beneficial uses rather than demographics
- The words within the actual definitions don't seem to direct the emphasis correctly. The priorities in the definitions seem misdirected.
  - For example, **energy** talks about reductions in use. We thought we should be talking about optimizing energy use for water management. It's not always about reducing energy. That's an example of a misdirected definition.
  - Another example, for **environmental**, lead with "aquatic resources" which is more global. This would be followed by specific requirements for fish, wildlife...
- On page 12, the definition of **affordability** is awkward. This shouldn't be limited to DACs, it's a statewide issue.
- Consider changing "**flood** damage reduction" benefit to "Integrated Flood Management. Flood damage reduction is anthropogenic and doesn't capture the entire picture. Water supply benefits also need to be included.
  - What happens with the benefits from managing flood a certain way, which can create drawbacks for other groups? That needs to be made clear.
- It would be good for the sub-committee to meet again to go through this.
- Page 3, **water quality** and suitability for a particular purpose – what purposes are valid?
- Page 4, **water supply reliability** – would like to hear more about competing with other regions in the State



- Regarding **affordability**, generally looking at costs more closely
- The **climate change** definition doesn't mention climate. Or should this roll up into resiliency? Or operational flexibility?
- **Operational flexibility and efficiency** could be beefed up to say more about water pricing or data collection. There's a lot that can be done to make the system more flexible or efficient.
  - Definition seems a bit circular, the goal needs to be more than "increase water-related benefits."
  - Suggestion: Delete the last part of the sentence. End after "irrigation."
  - Not sure how pricing affects operational flexibility. One way of allocating scarce resources is with prices – it's a possible tool. A value might be a well-functioning water market, which requires data collection.
  - Pricing in terms of monetary value will always give a preference to computer chips over broccoli – but which would you rather eat?
  - We need clarity on real, true costs – regardless of who pays. We're muddling the issues. Understand true costs first, then decide how to pay for, if they are worth paying for. Prioritizing comes through price signals or political decisions.
  - The definition of operational flexibility is to achieve benefits as defined by the larger society. The definition is about investing in tools to achieve the stated benefits.
  - Would add energy and engineering to the definition.

Clarification: The framework identifies benefits (without discussing how to achieve them) in Component 1. The policy aspects are contained in Component 2. Future costs and beneficiary pays discussions are addressed in Component 6. The funding questions of who and how are the substance of Component 7.

The goal for the sub-committee was to make sure we were talking about the same thing. People had been talking past each other and the definitions look at what's in or out of scope.

- **Environmental:** Natural heritage and control invasive species has an underlying value of preserving the status quo. This could be a very expensive undertaking within the context of climate change, for example if seawater moves in by 100 miles. It might be better to think about how can human activities minimize the abrupt changes to the environment.

There was a comment that suggested taking a sample package and conducting a cost-benefit analysis, to see if the definitions can get us to that point.

Comment: The elements of **sustainability** and the crisis of **aging infrastructure** are not being captured.

Response: Can sustainability benefits be captured by the existing framework?

Question: How far do we go in determining sustainability, especially in the face of changing conditions? What may be sustainable today, may not be sustainable in the future.

Response: Does the framework cover the types of issues that you are interested in?



Comment: Forests are a component of water supply infrastructure in the State. Flows are not in the environmental values list. There might be additional areas for agreement if the definitions were modified a bit.

### **Finance Scenario Development Template**

Paul Massera emphasized the iterative nature of process for developing the Finance Plan. By using the definitions to try and identify IWM activities for inclusion in the Plan, some of the limitations of the definitions will become apparent. Then we can loop back to reshape the definitions as needed. Mr. Massera noted that the group is inventing a process that has not been done before.

Paul provided a recap of recent work identifying IWM activities that are within scope and could be potential recommendations. He noted that whether activities are within scope or not does not indicate whether they will be recommended in the Finance Plan. There are other components to consider including the existing funding, sustainability of funding and costs.

The Finance Caucus previously discussed a conceptual approach for identifying IWM activities (Component 2). The process involves identifying both State government and regional IWM activities. These activities are then screened to determine which of them can best be implemented by State government. Ultimately, Update 2013 will generate investment recommendations for response packages. Figure 2 was displayed, illustrating the process for moving from an information base to a state investment package. There is a comparable process for developing regional response packages (Figure 3). Regional priorities for investment may vary considerably across regions.

The benefits of the investment packages will be compared to identify priorities and common themes. For Update 2013, it will not be possible to optimize packages for any particular benefit. DWR is looking to develop those tools for future analyses. Scenarios that consider future conditions may also help inform “no regrets” options.

### **Comments**

Comment: The information base should be expanded to include data from WetCAT, which includes broader policy objectives such as emissions reductions. The Resource Management Objectives box should be expanded as well – for example the PUC effort to look at water and energy benefits to make sure everyone wins.

Response: The intent is that the SASC includes those types of other State efforts.

Comment: It would be helpful to quantify benefits as well as costs.

Paul Massera explained the purpose of the template which is intended to compile and present information needed to develop investment packages and inform Update 2013 funding recommendations. The template will not provide a ranking of investment packages, which will be done later. Again, the template does not grade the packages. The template will provide



qualitative information that informs decision-making. It creates a foundation for informing the efforts that will move forward. Another important part of the activity is describing the limitations of the recommendations. The goal is to begin populating the content areas for the templates in the Spring of 2012.

Mr. Massera then walked through the State government template. Page 1 identifies the information base. Page 2 provides a discussion on the assumptions behind each investment package, including uncertain funding levels. It includes a planning horizon and jurisdictional scales and four alternate levels of future funding. The feedback is that these provide a good metric for comparison purposes.

Page 3 of the State template provides a narrative description about assumptions. This could include assumptions about natural disasters as well. We would want to talk about why an assumption is important and needs to be taken into account and how that affects a relative investment profile. Page 4 captures the management objectives which will evolve into the IWM benefits. As a starting point, the template populates the sub-objectives with the recommendations from Update 2009. This is the iterative part, where you will start to see whether there are/are not limitations in the definitions.

The discussion of performance metrics associated with objectives and benefits is contained on page 5. These connect back to the definitions and values. It is documented here for future use. Some of the performance measures could be tracked outside of developing a statewide report. The table on page 6 looks at response packages in the context of the Finance Plan, focusing on specific actions. The question to Finance Caucus members is whether the template will create scenarios that are useful for developing investment recommendations.

### **Discussion**

Question: Do you want to distinguish between taxes and fees, or bonds? You may end up having one or the other, or both, or neither.

Response: The goal was to determine the level of funding availability and the period of time that the funding will be available for.

Comment: I think it really does matter where the money comes from. It's too simplistic to say there's \$X of investment. We need to think carefully about where the money comes from and for what purposes. Multi-benefits projects may change the value.

**ACTION ITEM:** Within the simple numeric value, indicating level of funding, we need to sort out the issue of time – when the funding is available and for how long – and the issue of funding sources (to identify who the investor might be).

Comment: We need to redefine the funding constraints and uncouple it from the 2012 bond.

Comment: If the bonds are sold, we want to be able to capitalize.

Comment: This step is needed to develop the later strategy.



Comment: If you identify the true costs of the response packages, basically we have all the information needed to develop the strategy. Identify the true costs of what is on page 7 and use this page first.

Response: The level of funding is intended to be a “reality check” for likely funding scenarios. The template can be used to assume constrained or unconstrained funding levels.

Response: The template is designed to identify the assumptions, which have not been transparent.

Question: Are benefits also quantified? To the extent that benefits can be quantified, they should be.

Comment: Getting at acre feet/gallons-per-capita-per day, for water conservation, could be used to compare costs. We need to understand quality as well as cost.

Response: We will be looking at benefits quantitatively where possible, and qualitatively in other instances. It may be high-medium-low.

Response: In some situations, there may be extensive investment for a small return because it’s critical.

Question: How do we know to what level a region is planning for in terms of water supply reliability, or water quality? For example, suppose one region is looking for 90% reliability v. 100% or 110%. Or is one region looking at zero contaminants? This is difficult to tease out and regions might try to game it.

Response: This is a good transition to Ray Hoagland’s presentation, which looks to a decision-support system that will eventually be able to evaluate these types of tradeoffs.

Caucus members were invited to start using the tool and to identify areas that need to be refined.

### **Vision for Decision Support regarding State Government Funding Investments for Water Resources**

Ray Hoagland, DWR Economist described a Decision Support System (DSS) as an interactive computer-assisted system for integrating a large amount of information so that decision-makers can understand and evaluate trade-offs. The Water Plan is developing a conceptual framework for a DSS that could inform state investment decisions. An initial step is to assess the feasibility of such an approach, considering costs, returns and available data.

In terms of the Update 2013 Finance Plan, the DSS would inform storyboard components 1 (Scope and Outcomes), 2 (WM Activities), 5 (State Roles and Partnerships), and 9 (Tradeoffs). Future activities associates with the Finance Plan could also benefit from DSS analyses. In the short-term, a pilot-level DSS could be developed to demonstrate potential applications.

Mr. Hoagland described the general approach as one of developing a framework to analyze and quantify trade-offs when evaluating State and regional response packages and investment options. The approach will also use existing data and models whenever possible. A Shared Vision format will be used to collaboratively determine the framework structure and appropriate





models. The framework structure will look at response packages in various regions, as well as the hydrologic, economic, environmental and other linkages between regions. Another aspect that will be considered is the relationship between regional and statewide activities.

Two critical elements of the DSS include identifying response package objectives – at the state, regional and local levels – and metrics, as well as possible options to incent IWM activities. A range of evaluative techniques are available from rankings to complex modeling. Mr. Hoagland then introduced a schematic representing the DSS Framework logic. For each scenario, a region might look at a response package consisting of different activities that can be evaluated within a modeling system. Performance metrics would then be compared against regional objectives. A Regional Performance Score would create a feedback loop, informing the response package. Activities in one region may affect metrics in another region, as well as at the statewide level.

The DSS would initially help inform recommendations regarding a reasonable role for the State in IRWM activities. This framework could be useful for regional decision-makers as well. Advantages of the framework include greater consistency in analyses and evaluation of trade-offs, as well as improvements in integration of IWM activities and in data and modeling efforts.

Several different sets of modeling and simulation software are currently available that could contribute to the Framework. Challenges to achieving this level of DSS include gaps in data and the ability to coordinate various models. Update 2013 is building on analytical tools developed for Updates 2005 and 2009, including using WEAP to analyze response packages – this will be done in detail for the Central Valley.

This ties together all of the work that's been done – scenarios, strategies and defining benefits – in creating decision support. The timeline on the pilot includes the work that Rich Juricich is doing with response packages in the Central Valley.

**ACTION ITEM:** Follow up with recap and email.

## **ATTENDANCE:**

See master attendance list

## **Via Webinar:**

**Chuck Jachens**, US Bureau of Indian Affairs  
**Cathy Pieroni**,  
**Jennifer Svec**,  
**Mike Urhammer**,

**Dane Mathis**, DWR, South-Central Regional Office  
**Mary Randall**, DWR Northern Regional Office